

IN THE SPECIFICATION

Please amend the paragraph beginning on page 1, line 4, as follows:

This application is a divisional application of Serial No. 10/016,318, filed on October 30, 2001, ~~currently pending~~ now U.S. Patent No. 6,604,771.

Please amend the paragraph beginning on page 1, line 14, as follows:

In recent years, various types of vehicle structures that can reduce the deceleration of portions of a vehicle body other than a passenger compartment have been proposed. For example, such reduction has been achieved by appropriately setting deformation moods in collision for the portions of the vehicle body other than the passenger compartment, and by preventing the deformation of the vehicle body in a collision from extending to the passenger compartment to improve the vehicle occupant-protecting effect. ~~Refer a~~ See Japanese Patent Unexamined Publication No. Hei. 7-101354.

Please amend the paragraph beginning on page 5, line 15, as follows:

According to this construction, in case of a head-on collision, for example, a higher deceleration than the vehicle deceleration can be generated in the seat in an earlier stage of impact by accelerating the seat rearward by the first acceleration member the moment a collision occurs to thereby increase the restraining force of the seat belt for restraining the forward movement of the occupant. Following this, the deceleration of the seat can be adjusted by the second acceleration member so as to substantially match the deceleration of the occupant. Thus, the increase in forward inertia force applied to the occupant at the time of collision can be cancelled so that the decelerations of the vehicle body, the seat and the occupant become equal to one another in the early stage of the impact, and since the first and second acceleration member are provided inside the cylinder which is integrated with the seat, the occupant-protecting apparatus can be ~~plae~~ placed by making use of a space, for example, under the seat, this obviating the necessity of securing a particular vacant space only for this apparatus, thereby making it possible to attain the vehicle body compact in dimensions while promoting the reduction in weight and price.

LAW OFFICES OF  
MACPHERSON KWOK  
CHEN & HEDD LLP  
2402 MICHELSON DR.  
SUITE 210  
IRVINE, CA 92612  
(949) 752-7040  
FAX (949) 752-7049

Please amend the paragraph beginning on page 9, line 6, as follows:

The vehicle occupant-protecting apparatus according to the present invention, may further ~~includes~~ include:

a unidirectional piston movement restriction member operable to allow piston movement in response to the first acceleration member applying force to the piston and to prevent movement of the piston in a direction opposite to the piston movement.

Please amend the paragraph beginning on page 9, line 13, as follows:

The vehicle occupant-protecting apparatus according to the present invention, may further ~~includes~~ include:

a seat belt operable to restrict movement of the at least one occupant.

Please amend the paragraph beginning on page 14, line 7, as follows:

An embodiment of the invention will be described in detail based on [[a]] specific examples illustrated in the drawings.

Please amend the paragraph beginning on page 15, line 5, as follows:

Provided under the seat 1 is an actuator 8 constituting a first acceleration member and a second acceleration member. As shown in both Figs. 4A, 4B, the actuator 8 has a housing 8a and a piston head 8b accommodated in the housing 8a. Arm-like housing brackets 8c are connected with bolts to sides of the housing 8a at one ends end thereof. The respective housing brackets 8c are fastened with screws, respectively, to brackets 9, for example, welded to insides of seat side brackets 1a. Thus, the actuator 8 is integrally assembled to the seat 1. In addition, reclining brackets are integrally mounted on the seat side bracket 1a, whereby both the brackets rotatably support a seat back 1b, and hence a reclining angle adjusting member is provided.

Please amend the paragraph beginning on page 16, line 13, as follows:

A piston rod 8e is integrally formed on the piston head 8b on an opposite side thereof to the gas expansion chamber 8f (front of the vehicle) in such a manner as to protrude coaxially. A connecting block 8g is screwed to an end of the projection. A bent portion (an intermediate portion) of a tension rod 8h that is bent substantially into a V shape is brought into engagement with a support groove formed in the connecting block 8g to thereby be supported therein. Note

LAW OFFICE OF  
MACPHERSON KWOK  
CHEN & HEID LLP

1402 MICHELSON DR.  
SUITE 210  
IRVINE, CA 92612  
(949) 752-7040  
FAX (949) 752-7049

that a piston seal is provided on an outer circumferential portion of the piston head [[8]] 8b in such a manner to be brought into sliding contact with ~~an~~ an inner circumferential surface of the cylinder chamber 8d in order to enhance the airtightness.

Please amend the paragraph beginning on page 17, line 1, as follows:

In addition as shown in Fig. 3, a lock plate 10 having a plurality of lock holes disposed in a row is secured to each lower rail 5. A movable plate 12 is provided in such a manner as to be bridged between the two lock plates 10. The movable plate 12 has at ends thereof movable pawls adapted to be brought into the lock holes of the lock plate 10, respectively. In addition, the movable plate 12 is provided slidably relative to both the lower rails 5. The ends of the tension rod 8h, supported at the intermediate portion thereof by the connecting block 8g, extend toward the rear of the vehicle so as to reach near the pair of left and right lower rails 5 and eventually connects to the movable plate 12.

Please amend the paragraph beginning on page 17, line 14, as follows:

In addition, the movable pawl [[1]] 11 is biased in a spring-like fashion in a direction in which the pawl is brought into engagement with the lock hole in the lock plate 10 by member of a spring device, not shown. The seat is held at one of its sliding positions through the engagement between the pawls and the engagement holes. In normal use, in order to move the seat to an optional position, the movable pawls 11 are released from the engagement holes, respectively, against the spring biasing force with a lock release lever 13 and this frees the movable plate 12 relative to the lock plates 10, whereby the seat 1 can be moved.

Please amend the paragraph beginning on page 20, line 23, as follows:

In addition, as described previously, the piston rod 8e and the housing 8a are connected to each other via the stopper ring 8l. Therefore, the connecting force (press fitting force of the stopper ring 8l into the housing 8a) can move the movable plate 12 integrally with the seat 1 when the seat 1 moves, but the connecting force is adjusted such that the piston rod 8e and the housing 8a are released from each other when exposed to the pushing force of the piston rod head 8b generated by the explosion of gas.

LAW OFFICES OF  
MACPHERSON KWOK  
CHEN & HEID LLP

2401 MICHELSON DR.  
SUITE 210  
IRVINE, CA 92612  
(949) 752-7040  
FAX (949) 752-7049

Please amend the paragraph beginning on page 21, line 8, as follows:

Next, in a second stage illustrated in Fig. 5B, the piston head 8e 8b is brought into impact abutment with the collapsible tube 8k, but gas explosion force has been generated, and the seat 1 moves to the rear of the vehicle at a relative speed relative to the passenger compartment (floor 4), whereby the collapsible tube 8k is collapsed and deformed by the relative movement of the piston head 8b and the housing 8a (refer to Fig. 6B). A load generated as this occurs is directed to the opposite direction to that in the first stage, and an acceleration is generated in the seat 1 in an opposite direction to the impact deceleration in association with the expansion of compression deformation of the engine room portion 19a of the main frame 19. Thus, the second acceleration member is constituted.

Please amend the paragraph beginning on page 21, line 23, as follows:

The acceleration of the seat 1 relative to the floor 4 generated by the second acceleration member serves to reduce the deceleration of the seat 1 as shown at a portion b in Fig. 7, and even an acceleration is developed in the seat. Then, as the acceleration so developed lowers, the deceleration of the seat 1 returns to a certain level of deceleration shown at a portion c in Fig. 7. The physical properties of the material and the configuration of the collapsible tube 8k is adjusted such that a predetermined load is generated to thereby cause the aforesaid change in deceleration occurs to develop. The properties of the seat belt 3, load characteristics of the collapsible tube 8k and gap between the collapsible tube 8k and the piston head 8b are appropriately designed depending on vehicles on which the apparatus is equipped such that the speed and deceleration of the occupant come to match the speed and deceleration of the vehicle body at the point in time where the return of deceleration occurs.

Please amend the paragraph beginning on page 24, line 16, as follows:

Thus, according to the invention, in the case of, for example, head-on impact, the seat is accelerated rearward by the first acceleration member momentarily after an impact occurs so that a higher deceleration than the vehicle body deceleration is generated in the seat to thereby enhance the restraining force of the seat belt which ~~restrict~~ restricts the forward movement of the occupant, and following this, the deceleration of the seat can be adjusted by the second acceleration member such that the deceleration of the seat substantially matches the deceleration of the occupant, whereby the increase in inertia force which is applied to the occupant in the

LAW OFFICES OF  
MACPHERSON KWOK  
CHEN & HEED LLP  
2402 MICHELSON DR.  
SUITE 210  
IRVINE, CA 92612  
(949) 752-7040  
FAX (949) 752-7049

forward direction at the time of impact can be cancelled, thereby making it possible to make the deceleration of the vehicle body and seat and the deceleration of the occupant equal to each other. Moreover, since the first acceleration member and the second acceleration member are provided in the cylinder which is integrated with the seat, the apparatus of the invention can be installed using a space formed under the seat and this can obviate the necessity of provision of vacant space particularly for installation of the apparatus, thereby attaining the vehicle body which is compact in dimensions, as well as promoting the reduction in weight and price.

Please amend the paragraph beginning on page 25, line 15, as follows:

In addition, the seat can slidably be adjusted in normal use by providing the selective lock member between the piston and the cylinder, whereby the aforesaid effectiveness can be attained without deteriorating the function of the seat originally inherent therein. Alternatively, the vehicle body and the seat can be made integral with each other when the seat attempts to return forward after the piston is moved by the first acceleration member and the second acceleration member and hence the seat moves rearward relative to the vehicle body by providing the unidirectional piston movement restriction member between the piston and the cylinder it moves rearward relative to the vehicle body[.]. thus Thus, the deceleration of the occupant and the deceleration of the vehicle body in the last stage of the impact being is caused to substantially coincide with each other with the simple construction as described heretofore.

Please amend the paragraph beginning on page 26, line 7, as follows:

While there has been described in connection with the preferred embodiment of the invention, it will be obvious to those skilled in the art that various changes and modifications may be made therein without departing from the invention, and it is aimed, therefore, to cover in the appended ~~claim~~ claims all such changes and modifications as fall within the true spirit and scope of the invention.

LAW OFFICES OF  
MACPHERSON KWOK  
CHEN & HEID LLP

2401 MICHELSON DR.  
SUITE 210  
IRVINE, CA 92613  
(949) 752-7040  
FAX (949) 752-7040